WHAT IS CLAIMED IS:

1. A manufacturing line having an automatic transport system comprising:

an input means for inputting design conditions and the importance of each of said design conditions, said design conditions being a manufacturing line's design that is comprised of an environment of work area and transfer paths connected among said work area;

a calculation means from which candidates of an appropriate manufacturing line are outputted by being calculated from said design conditions and said importance;

a simulation means which simulates said some candidate of said manufacturing line respectively; and

an output means which generates and outputs a program or programs of an optimized manufacturing line.

2. The manufacturing line having automatic transport system according to claim 1, wherein said design conditions include:

required working steps for said manufacturing line;

working time of each of said required working steps;

outputted products of said line;

working space available in said work area;

transfer paths connected among said working area; and

investment value.

3. The manufacturing line having automatic transport system according to claim 1, wherein said simulation means simulates a transfer duration among said working area and usage rates of said working space.

4. A manufacturing line design support system comprising:

inputting at least one system design requirement of a manufacturing line design from a group consisting of working time of each process, an operating rate, plant cost or equipment cost;

inputting and applying a weighting factor of importance to said design requirements;

outputting potential candidates of an optimum manufacturing line;

performing performance simulations on said outputted candidates; and

displaying a resultant construction design of the optimum manufacturing line.

5. An automated production line system comprising:

a work area for automated guided pallets(AGP);

automated guided pallets(AGP);

a flow type (FT) control system to guide the automated guided pallets(AGP) around the work area;

a job type (JT) control system to control the specific function performed on the automated guided pallets(AGP) when the automated guided pallets(AGP) are placed at a job site in the work area;

a system controller which harmonizes the functions of the flow type (FT) control system and the a job type (JT) control system so that the two systems wok together at the same time in the work area to optimize output.